

SCHOLARSHIP

Peer-reviewed Publications (Listed in Reverse Chronological Order; * Indicates Student Authors)

1. Thygerson SM, Beard JD, House MJ*, Smith RL*, Burbidge HC*, Andrus KN*, Weber FX, Chartier R, **Johnston JD** (2019). Air-quality assessment of on-site brick-kiln worker housing in Bhaktapur, Nepal: Chemical speciation of indoor and outdoor PM_{2.5} pollution. *International Journal of Environmental Research and Public Health*. 16:21, 4114; <https://doi.org/10.3390/ijerph16214114>.
2. **Johnston JD**, Cowger AE*, Graul RJ*, Nash R*, Tueller JA*, Hendrickson NR*, Robinson DR*, Beard JD, Weber KS (2019). Associations between evaporative cooling and dust-mite allergens, endotoxins, and β -(1 \rightarrow 3)-D-glucans in house dust: A study of low-income homes. *Indoor Air*. <https://doi.org/10.1111/ina.12600>
3. Chaney RA, Montgomery HD*, King JH*, Hendrickson NR*, Sloan CD, **Johnston JD** (2019). A comparison of perceived and measured commuter air pollution exposures. *Journal of Environmental Health*. 82:4, 8-14.
4. Davis SF*, **Johnston JD**, Magnusson BM, Novilla ML, Torgersen BK*, Schnell AJ*, Crandall A (2018). Predictors of radon testing among Utah residents using a theory-based approach. *Journal of Environmental Health*. 80:6, 20-27.
5. Sanjel S, Khanal SN, Thygerson SM, Carter WS, **Johnston JD**, Joshi SK (2017). Exposure to respirable silica among clay brick workers in Kathmandu valley, Nepal. *Archives of Environmental and Occupational Health*. (Published online 12/22/2017).
6. Chaney RA, Sloan CD, Cooper VC*, Robinson DR*, Hendrickson NR*, McCord TA*, **Johnston JD** (2017). Personal exposure to fine particulate air pollution while commuting: An examination of six transport modes on an urban arterial roadway. *PLoS ONE*, 12:11, e0188053. <https://doi.org/10.1371/journal.pone.0188053>
7. Sanjel S, Khanal SN, Thygerson SM, Carter WS, **Johnston JD**, Joshi SK (2017). Respiratory symptoms and illnesses related to the concentration of airborne particulate matter among brick kiln workers in Kathmandu Valley, Nepal. *Annals of Occupational and Environmental Medicine*. 29:9. doi: 10.1186/s40557-017-0165-0
8. **Johnston JD**, Kruman BA*, Nelson MC*, Merrill RM, Graul RJ*, Hoybjerg TG*, Tuttle SC*, Myers SJ*, Cook RB*, Weber KS (2017). Differential effects of air conditioning type on residential endotoxin levels in a semi-arid climate. *Indoor Air*. doi: 10.1111/ina.12369
9. **Johnston JD**, Barney T*, Crandall J*, Brown M*, Westover T*, Paulson S*, Smith M*, Weber KS (2017). Prevalence of house dust mite allergens in low-income homes with evaporative coolers in a semi-arid climate. *Archives of Environmental and Occupational Health*. doi: 10.1080/19338244.2017.1282846

10. Sloan CD, Weber FX, Bradshaw RK*, Philipp TJ*, Barber WB*, Palmer VL*, Graul RJ*, Tuttle SC*, Chartier RT, **Johnston JD** (2016). Elemental analysis of infant airborne particulate exposures. *Journal of Exposure Science & Environmental Epidemiology*. doi:10.1038/jes.2016.77
11. **Johnston JD**, Merrill RM, Zimmerman GC*, Collingwood SC, Reading JC (2016). Factors associated with biosafety level-2 research workers' laboratory exit hand washing behaviors and glove removal compliance. *Journal of Occupational and Environmental Hygiene*, 13:4, 254-264.
12. **Johnston JD**, Tuttle SC*, Nelson MC*, Bradshaw RK*, Hoybjerg TG*, Johnson JB*, Kruman BA*, Orton TS*, Cook RB*, Eggett DL, Weber KS (2016). Evaporative cooler use influences temporal indoor relative humidity but not dust mite allergen levels in homes in a semi-arid climate. *PLoS ONE*, 11:1, e0147105. doi:10.1371/journal.pone.0147105
13. Sloan CD, Philipp TJ*, Bradshaw RK*, Chronister S*, Barber WB*, **Johnston JD** (2016). Applications of GPS-tracked personal and fixed-location PM_{2.5} continuous exposure monitoring. *Journal of the Air & Waste Management Association*, 66:1, 53-65.
14. **Johnston JD**, Magnusson BM, Eggett DL, Collingwood SC, Bernhardt SA (2015). Comparison of single-point and continuous sampling methods for estimating residential indoor temperature and humidity. *Journal of Occupational and Environmental Hygiene*, 12:11, 785-794.
15. **Johnston JD**, Eggett D, Johnson MJ, Reading JC (2014). The influence of risk perception on biosafety level-2 laboratory workers' hand-to-face contact behaviors. *Journal of Occupational and Environmental Hygiene*, 11:9, 625-632.
16. **Johnston JD**, Magnusson BM, Eggett D, Mumford K, Collingwood SC, Bernhardt SA (2014). Sensor drift and predicted calibration intervals of handheld temperature and relative humidity meters under residential field-use conditions. *Journal of Environmental Health*, 77(3), 22-28.
17. **Johnston JD**, Thygeson SM, Johnson MJ, Reading JC (2013). Hand washing quality among biosafety level 2 research laboratory workers. *Applied Biosafety*, 18(3), 116-121.
18. Ashton C*, Bernhardt SA, Lowe M, Mietchen M, **Johnston JD** (2012). Comparison of HIV/AIDS rates between U.S.-born blacks and African-born blacks in Utah, 2000 – 2009. *Open AIDS J*, 6(Suppl 1: M13), 170-176.
19. Chessin SJ, **Johnston JD**. (2002). Thermal loading as a causal factor in exceeding the 0.1 PPM laboratory fume hood control level. *Applied Occupational and Environmental Hygiene*, 17(7), 512-518.
20. **Johnston JD**, Chessin SJ, Chesnovar BW, Lillquist DR. (2000). The effect of thermal loading on laboratory fume hood performance. *Applied Occupational and Environmental Hygiene*, 15(11), 863-868.

Non Peer-Reviewed Publications

Sloan CD, **Johnston JD**. (2016). Can extreme air pollution events provide a window into incident asthma? *American Journal of Respiratory Critical Care Medicine*, 194(12): 1440-1441.

Oral Presentations

Johnston JD. (2018). Indoor environmental quality in Utah homes. Utah Environmental Health Association Fall Conference, Provo, UT.

Johnston JD. (2016). Dust mite prevalence in Utah's semi-arid climate. Utah Environmental Health Association Spring Conference, Springdale, UT.

Johnston JD, Bernhardt SA, Magnusson BM, Eggett D, Collingwood SC. (2015). Representativeness of single-point sampling for estimating residential indoor air temperature and relative humidity. American Industrial Hygiene Conference and Exposition, Salt Lake City, UT.

Johnston JD, Eggett D, Johnson MJ, Reading JC. (2014). Factors influencing hand-to-face contact among biosafety level-2 research laboratory workers. American Industrial Hygiene Conference and Exposition, San Antonio, TX.

Johnston JD, & Johnson MJ (2011). Quality of hand-washing among biosafety level-2 laboratory workers. Presented at the 54th Annual Conference of the American Biological Safety Association, Anaheim, CA.

Johnston JD, Reading JC, Johnson MJ, & Richardson GE (2010). Hand hygiene in the biosafety level-2 lab: Is it a matter of training? Presented at the 53rd Annual Conference of the American Biological Safety Association, Denver, CO.

Johnston JD, Trunnell EP. (2006). An interdisciplinary approach to biological safety training. Presented at the 49th Annual Conference of the American Biological Safety Association, Boston, MA.

Chessin SJ, **Johnston JD,** Stephenson D, & Lillquist DR. (2000). The effect of thermally hot operations on fume hood performance: A tracer gas analysis. Presented at the American Industrial Hygiene Association Conference, Orlando, FL.

Poster Presentations (Listed in Reverse Chronological Order; *Indicates Student Authors)

Cowger AE*, Beard JD, Tueller JA*, Weber KS, **Johnston JD.** What house dust can tell us about indoor air quality: Bioaerosols in low-income homes with evaporative coolers. American Industrial Hygiene Conference & Expo (AIHce) 2019, Minneapolis, MN.

Coombs S*, Hagman K*, Peterson E*, Ward J*, Ellis Q*, **Johnston JD.** A breath of "fresh" air: Does the estimated level of ambient exposure to PM_{2.5} differ between indoor and outdoor exercise during the winter? American Industrial Hygiene Conference & Expo (AIHce) 2019, Minneapolis, MN.

Ghanadan G*, Davis SF, **Johnston JD.** Mitigation behaviors among Utah residents with high radon test results. American Industrial Hygiene Conference & Expo (AIHce) 2019, Minneapolis, MN.

Cowger AE*, **Johnston JD,** Graul RJ*, Nash R*, Tueller JA*, Hendrickson NR*, Beard JD, and Weber KS. Bioaerosols associated with evaporative cooler use in low-income homes in the semi-arid climate of Utah County, Utah, USA American Society of Microbiology Rocky Mountain Branch Meeting April 13th 2019. Provo Utah.

Hendrickson NR*, King JH*, Montgomery HD*, Chaney RA, Sloan CD, **Johnston JD**. Perceived risk of commuter air pollution exposure. American Industrial Hygiene Conference & Expo (AIHce) 2018, Philadelphia, PA.

Graul R*, Cowger A*, Nash R*, Tueller J*, Beard JD, Weber KS, **Johnston JD**. Prevalence of dust mite allergens in low-income homes in Utah County, Utah. American Industrial Hygiene Conference & Expo (AIHce) 2018, Philadelphia, PA.

Hendrickson NR*, Cooper VC*, Sloan CD, Chaney RA, **Johnston JD**. Personal exposure to fine particulate air pollution (PM_{2.5}) while commuting: An examination of six transport modes on an urban arterial roadway. American Industrial Hygiene Conference & Expo (AIHce) 2017, Seattle, WA.

Nielsen N*, Palmer V*, Bradshaw B*, Thacker E, **Johnston JD**. Estimating children's exposure to indoor particulate matter (PM₁₀) using a statistical prediction model. American Industrial Hygiene Conference & Expo (AIHce) 2017, Seattle, WA.

Palmer V*, Nielsen N*, Cox A*, Bradshaw B*, Brown M*, Barney T*, Graul R*, Torgersen B*, Tuttle C*, Thacker E, **Johnston JD**. Development of a model to predict preadolescent children's indoor PM₁₀ exposures. NEHA 2016 AEC and HUD Healthy Homes Conference, San Antonio, TX.

Graul RJ*, Tuttle SC*, Kruman BA*, Nelson MC*, Hoybjerg TG*, Meyers S*, Cook RB*, Eggett DL, Weber KS, **Johnston JD**. Differences in indoor dust endotoxin levels based on type of air conditioning in homes in a semi-arid climate. NEHA 2016 AEC and HUD Healthy Homes Conference, San Antonio, TX.

Brown M*, Barney T*, Westover T*, Paulson S*, Smith M*, Crandall J*, Weber KS, **Johnston JD**. Dust mite allergens in low-income homes with evaporative coolers in a semi-arid climate. NEHA 2016 AEC and HUD Healthy Homes Conference, San Antonio, TX.

Davis SF*, Cox AL*, Magnusson BM, Crandall A, Jensen A, Larsen B, Torgersen BK*, **Johnston JD**. Factors influencing radon testing behaviors among Utah County residents. NEHA 2016 AEC and HUD Healthy Homes Conference, San Antonio, TX.

Hoybjerg T*, Christiansen M*, Myers S*, Kruman B*, **Johnston JD**, and Weber KS. Development of sensitive Limulus Amebocyte Lysate assay to quantify endotoxin levels in Utah homes with and without swamp coolers. 9th Annual Utah Conference on Undergraduate Research. February 27, 2015. St. George Utah.

Christiansen M*, Hoybjerg T*, Cook R*, **Johnston JD**, and Weber KS. Comparison of dust mite antigen levels in Utah homes with swamp coolers versus homes with air conditioning. 9th Annual Utah Conference on Undergraduate Research. February 27, 2015. St. George Utah.

Johnston JD, Bernhardt SA, Magnusson BM, Eggett D, Collingwood SC. Comparison of continuous and single-point measurement of residential temperature and relative humidity. 78th National Environmental Health Association Annual Educational Conference, 2014, Las Vegas, NV.

Wahlquist B*, Kruman B*, Weber KS, **Johnston JD**. (2014). The effect of evaporative coolers on indoor relative humidity and dust mite allergens in Utah homes. 8th Annual Utah Conference on Undergraduate Research, Provo, UT.

Campbell E*, Johnson J*, **Johnston JD**, Weber KS. (2014). Development of sensitive ELISA and qPCR assays to quantitate levels of dust mite antigens in homes in Utah with and without swamp coolers. 8th Annual Utah Conference on Undergraduate Research, Provo, UT.

Johnston JD, Johnson MJ. (2010). Hand-to-face contact as a route of transmission in the biosafety level 2 laboratory. Also an Abstract Published in Proceedings of the 53rd Annual American Biological Safety Association Conference, 53. Poster session presented at Proceedings of the 53rd Annual American Biological Safety Association Conference, Denver, CO.

Johnson MJ, **Johnston JD**. (2010). Evaluating glove use in the biosafety level-2 research laboratory. Also an Abstract Published in Proceedings of the 53rd Annual American Biological Safety Association Conference, 52. Poster session presented at 53rd Annual American Biological Safety Association Conference, Denver, CO.

Invited Presentations

Johnston JD. (2016). House dust mites in Utah's semi-arid Climate? Utah Asthma Task Force, June 2016. Utah Department of Health, Salt Lake City, UT.

Johnston JD, Davis SF*, Magnusson BM, Novilla L, Torgersen BK*, Gunn A*. (2016). Radon knowledge, attitudes, and testing among Utah County residents. EPA Region 8 Radon Stakeholders Conference, Utah Department of Environmental Quality, Salt Lake City, Utah.

Johnston JD. (2008). Institutional Biosafety Committee Basics. Society of Research Administrators International – Western Section Conference, Denver, CO.

External Funding Applications/Awards

NIH, National Institute of Child Health & Human Development (2012). \$285,875 contract (#HHSN275200800027C), sub-award agreement between University of Utah and Utah State University. Quality Assurance, Quality Control, and Availability of Materials for the National Children's Study. Sub-award Contract #10009468-1. Role: Co-Investigator (20%).

Internal Funding Applications/Awards

Charles Redd Center for Western Studies, Annaley Naegle Redd Assistantship (2019). \$12,000. Characterization of bacterial and fungal species in Utah homes with evaporative coolers and central air conditioners. Role: Principal Investigator.

Douglas C. Heiner Research Gift (2014). \$11,000. Efficacy of high-volume dehumidification to reduce allergen levels in the homes of allergic subjects. Role: Principal Investigator.

College of Life Sciences Start-up Grant (2014). \$20,000. (Funded)

College of Life Sciences Start-up Grant (2013). \$20,000. (Funded)

College of Life Sciences Start-up Grant (2012). \$20,000. (Funded)

Media Features on Research Projects

BYU Radio, Matt Townsend Show live interview on dust mite allergens in Utah County homes, June 2, 2016.
<http://www.byuradio.org/episode/ffedd537-d4cc-45e9-87b1-f5bc139c7ad9/the-matt-townsend-show-the-abolitionists-war-on-soda-allergies-and-dust-mites?playhead=6580&autoplay=true>

Research from BYU suggests Utah County's climate makes dust mites less of a concern. KSTU FOX 13 News, May 11, 2016. <http://fox13now.com/2016/05/11/research-from-byu-suggests-utah-countys-climate-makes-dust-mites-less-of-a-concern/>

Are dust mites really a problem in Utah? A new study done by BYU says no. ABC 4 News, May 9, 2016.
<http://www.good4utah.com/news/top-stories/are-dust-mites-really-a-problem-in-utah>

New BYU study shows low numbers of dust mites in Utah County homes. KSL NewsRadio. May, 2016.
<https://audioboomb.com/boos/4549098-new-byu-study-shows-low-numbers-of-dust-mites-in-utah-county-homes>

BYU News Feature on house dust mite research and publication. May 6, 2016.
<https://news.byu.edu/news/dust-mites-invading-your-mattress-maybe-not-say-byu-researchers>

CITIZENSHIP

BYU Department of Health Science Committees

1. MPH Admissions Committee. Member (2019 – Present)
2. Professional Development Committee. Member (2019 – Present)
3. Alumni Committee (Ad Hoc). Chair. (2018 – 2019)
4. College Undergraduate Research Awards (CURA) Committee. Member (2018)
5. Faculty Search Committee. Member. (2016 – 2017)
6. Merit Pay Committee. Member (2016 – 2017)
7. Undergraduate Curriculum & Learning Committee. Member. (2013 – 2017)
8. MPH Admissions Committee. Member (2016)
9. Student Scholarships Committee. Member. (2013 – 2016)
10. Merit Pay Committee. Member. (2013 – 2014)
11. MPH Admissions Committee. Member. (2013)

BYU College of Life Sciences Committees

1. Mentoring Environment Grant (MEG) Committee. Member. (2013, 2014)
2. Undergraduate ORCA Grant Reviewer. (2012, 2017)

University Committees

1. Institutional Biosafety Committee (IBC). Brigham Young University, Office of Research and Creative Activities. Member. (2013 – 2016)
2. Research Compliance Committee. University of Utah, Office of Research Administration. Member (2004 – 2010)
3. Emergency Operations Center, University of Utah. Safety Officer. (2010)

Professional Associations/Committees

1. Utah County Health Department, Administrative Review Board (2017 - Present)
2. American Industrial Hygiene Association
Chair, Indoor Environmental Quality Committee (2017 - 2018)

Vice Chair, Indoor Environmental Quality Committee (2016 – 2017)
Secretary, Indoor Environmental Quality Committee (2015 – 2016)
Secretary-elect, Indoor Environmental Quality Committee (2014 – 2015)
Member (2011 – Present)

3. International Society of Indoor Air Quality and Climate
Member (2017 - 2018)
4. National Environmental Health Association
Member (2011 – Present)
5. Utah Section, American Industrial Hygiene Association
Member (2013 – Present)
6. Utah County Household Hazardous Waste Committee
Member (2015 – 2019)
7. American Biological Safety Association
Member (2004 – 2016)

Editorial Appointments

Reviewer, *Applied Biosafety*: 2013 – Present
Reviewer, *Journal of Environmental Health*: 2013 – Present
Reviewer, *Biomedical and Environmental Sciences*: 2017
Reviewer, *PLoS ONE*: 2017 – Present
Reviewer, *Environmental Research*: 2018 – Present
Reviewer, *Journal of Occupational and Environmental Hygiene*: 2019 - Present
Reviewer, *International Journal of Environmental Research and Public Health*: 2019 – Present
Reviewer, *Journal of Toxicology and Environmental Health, Part A: Current Issues*: 2020 – Present

TEACHING

University Courses

2018 - Present Health, Disease, & Determinants 2 (HLTH 315), Brigham Young University.
2019 - Present Sampling & Exposure Assessment Lab 2 (HLTH 429), Brigham Young University.
2015 - Present Sampling & Exposure Assessment Lab 1 (HLTH 428), Brigham Young University.
2012 - 2018 Environmental Health (HLTH 322), Brigham Young University.
2012 - 2017 Disaster Response and Emergency Preparedness (HLTH 422), Brigham Young University.
2008 - 2010 Foundations and Theories of Health Promotion (HEDU 6000), University of Utah.

Graduate Committees

2019 - 2021 Emily Chahal, MPH (advisor).
2018 - 2020 Shelby Taylor, MS, Statistics (member). *Predicting and Explaining Preadolescent Children's Indoor PM₁₀ Exposures*, Brigham Young University, Department of Statistics.
2017 - 2019 Shilpa Shrestha, MPH (member). *Global Fairness Initiatives, Nepal*, Brigham Young University, Department of Public Health.

- 2017 - 2019 Rilee Peterson, MPH (chair). *The Better Brick Nepal Program of The Global Fairness Initiative: Occupational and Environmental Health in Nepal's Brick Kilns*, Brigham Young University, Department of Public Health.
- 2017 – 2019 Ashlin Cowger, MS Microbiology and Molecular Biology (member). *Bioaerosols in low-income homes with evaporative coolers*, Brigham Young University, Department of Microbiology and Molecular Biology.
- 2016 - 2018 Christine Frandsen, MPH (chair). *Utah Department of Health, Asthma and Arthritis Programs*, Brigham Young University, Department of Public Health.
- 2015 - 2017 Simone Bateman, MPH (member). *Utah County Department of Drug and Alcohol Prevention and Treatment*, Brigham Young University, Department of Health Science.
- 2015 - 2017 Samuel AJ Patha, MPH (member). *Utah Department of Health: Utah Asthma Program – Recess Guidance*, Brigham Young University, Department of Health Science.
- 2014 – 2016 Siena Davis, MPH (member). *Promoting HIV Testing Among NYC Residents*, Brigham Young University, Department of Health Science.
- 2013 – 2015 Robin Ellis, MPH (member). *Mental Health America*, Brigham Young University, Department of Health Science.
- 2013 – 2015 Andrew Chalmers, MPH (Chair). *Grading the University of Utah's Emergency Management Program*, Brigham Young University, Department of Health Science.
- 2012 – 2014 Ali Hatch, MPH (Chair). *Latter-day Saint Charities: Wheelchair initiative partner evaluation and monitoring system*, Brigham Young University, Department of Health Science.
- 2012 – 2014 David Vance, MPH (member). *Working in the Shared Accountability Department of Intermountain Healthcare*, Brigham Young University, Department of Health Science.
- 2012 - 2014 Martha Keyes, MPH (member). *The association between demographic indicators, community health worker interaction, and health knowledge and behavior among Bandhan microfinance clients*, Brigham Young University, Department of Health Science.
- 2010 - 2011 Kimberly Judd, Masters Committee (member). *Breast Cancer Prevention and Early Detection Knowledge and Practice*, University of Utah, Department of Health Promotion & Education.
- 2010 - 2011 Crystal Ashton, Masters Committee (member). *HIV Among African-born Utah Residents*, University of Utah, Department of Health Promotion & Education.

Training Courses Taught

- 10/2014 Factors influencing hand hygiene in the biosafety level-2 (BSL-2) laboratory. 31st Annual Utah Conference on Safety and Industrial Hygiene, Salt Lake City, UT.
- 2011 - 2012 Essentials for Healthy Homes Practitioners. National Center for Healthy Housing, CDC.
- 2004 - 2010 Bloodborne Pathogens. University of Utah, Department of Environmental Health & Safety.
- 2009 - 2010 Biosafety Level-2 Laboratory Safety. University of Utah, Department of Environmental Health & Safety.

SCHOLASTIC HONORS

- 2019 1st Place Gold, Best in Show Award (Student Poster Winner), for poster presentation: Cowger AE*, Beard JD, Tueller JA*, Weber KS, Johnston JD. What house dust can tell us about indoor air quality: Bioaerosols in low-income homes with evaporative coolers. American Industrial Hygiene Conference and Exposition (AIHce 2019), Minneapolis, MN.
- 2019 Distinguished Poster Award. Cowger AE*, Johnston JD, Graul RJ*, Nash R*, Tueller JA*, Hendrickson NR*, Beard J, and Weber KS. Bioaerosols associated with evaporative cooler use in low-income homes in the semi-arid climate of Utah County, Utah, USA American Society of Microbiology Rocky Mountain Branch Meeting April 13th 2019. Provo Utah.
- 2019 1st Place, for poster presentation: Smith SA*, House MJ*, Teniza G*, Strauss AM*, Johnston JD. Air pollution and the risk of outdoor winter exercise. Harold B. Lee Library/College of Life Sciences Poster Competition, March 28, 2019, Brigham Young University, Provo, Utah.
- 2010 Robert I Gross Memorial Award, American Biological Safety Association, 53rd Annual Biological Safety Conference, Denver, CO.
- 2006 Jack Lunt Foundation Scholarship, Department of Health Promotion & Education, University of Utah, Salt Lake City, UT.
- 2000 Golden Pump Award, Rocky Mountain Center for Occupational and Environmental Health, University of Utah, Salt Lake City, UT.
- 1998 Microbiology Service Award, Department of Microbiology, Weber State University, Ogden, UT.
- 1998 - 2000 Industrial Hygiene Graduate Fellowship, U.S. Department of Energy, Oak Ridge Institute for Science and Education, Oak Ridge, TN.
- 1997 Microbiology Activities Scholarship, Department of Microbiology, Weber State University, Ogden, UT.